

IN THE SPECIFICATION:

Please amend the paragraph on page 6, lines 1-19 as follows:

One preferred form of the present invention will now be described with reference to the accompanying drawings in which;

Figure 1 shows an example of an humidification system, comprised of three parts,

Figure 2 shows a chamber which incorporates a metal element,

Figure 3 shows a chamber using a porous material to provide a heating and humidifying function,

Figure 4 shows a chamber using a semipermeable membrane,

Figure 5 shows a chamber with a variable valve to adjust the ratio of gas which are bypassed,

~~Figure 5A shows a modification to the embodiment shown in Figure 5;~~

Figure 6 shows a chamber with an adjustable valve 30 where one part of the gas gets humidified while the other is heated,

~~Figure 6A shows a modification to the embodiment shown in Figure 6;~~

Figure 7 shows a chamber where the dry gas entering chamber is pre-heated,

Figure 8 shows a chamber where the dry gas entering chamber is heated after leaving the chamber,

Figure 9 shows a chamber combined with an unheated, well insulated delivery tube,

Figure 10 shows construction of a tube incorporating flexible PTC elements in a parallel wire configuration.

Figure 11 shows a humidifier configuration using the tube in Figure 10, and

Figure 12 shows the chamber manifold.

Please amend the paragraph on page 11, lines 3-15 as follows:

The angle of variable valves 26 and 30 in Figures 5 and 6, may be permanently set, may be manually adjustable 1300, or may be automatically adjustable for example by electromechanical actuation 1400. One advantage of an automatically adjustable valve would be to provide a constant level of humidity out of the chamber when used with intermittent flow rates, for example when used with a ventilator. These flow patterns can be a problem because parts of the breath cycle contain less humidity than other parts, due to the chamber providing less humidity at higher flow rates. One way to overcome this problem is to measure the instantaneous flow rate using a fast response flow sensor, and then rapidly adjusting the angle of the variable valve. A more practical method of achieving this effect would be to spring-load valves 26 and 30 using springs 70 and 71 ~~or, as shown in Figures 5A and 6A, to use an elastic valve member 26A or 30A to form the variable valve.~~ This would mean that low flow rates would mostly pass through the bypass tubes, while high flow rates would operate the spring-loaded valve and allow more gas to pass across the water in the humidification chamber. The angle of the spring-loaded variable valve could also be used by the humidifier to measure the gas flow rate.